## LISTING OF CLAIMS:

1. (Original) A method for inhibiting the polymerisation of one or more ethylenically unsaturated monomers selected from the group consisting of: styrene, α-methylstyrene, styrene sulphonic acid, vinyltoluene, divinylbenzenes, polyvinylbenzenes, alkylated styrene, 2-vinylpyridine, acrylonitrile, methacrylonitrile, methyl acrylate, ethyl acrylate, methyl methacrylate, ethyl methacrylate, acrylic acid, and methacrylic acid;

by adding to the monomers an effective amount sufficient to inhibit polymerisation of a nonhindered cyclic hydroxylamine, alone or in combination with an additional inhibitor.

- 2. (Original) A method as claimed in claim 1, wherein the non-hindered cyclic hydroxylamine has no alkyl or other substituents alpha to the hydroxylamine group.
- 3. (Original) A method as claimed in claim 2, wherein the cyclic hydroxylamine has the formula (1).

wherein X is a group selected from  $(CH_2)_m Y(CH_2)_n$  where m and n are each independently an integer from 0 to 5 and Y is a  $CH_2$ , or hetero atom such as O, S or NH and wherein one or more  $CH_2$  is optionally substituted with one or more  $C_1$  to  $C_5$  alkyl groups,  $(CH_2)_r$ -CH=CH- $(CH_2)_s$  where r and s are independently integers from 0 to 3, optionally substituted with one or more  $C_1$  to  $C_5$  alkyl groups.

4. (Original) A method as claimed in claim 3 wherein the cyclic hydroxylamine is selected from the group consisting of 1-hydroxypiperidine, 4-hydroxymorpholine, 1-hydroxypyrrolidine, 1-hydroxyazetidine, 1-hydroxy-2,5-dihydropyrrole, 1-hydroxyhexamethylene imine and 1-hydroxyazocan.

- 5. (Original) A method as in claim 2 wherein the cyclic hydroxylamine is selected from the group consisting of 1-hydroxy-2,3,4-trihydroquinoline, 9-hydroxycarbazole and 1-hydroxy-2,3-dihydroindole, optionally substituted with one or more  $C_1$  to  $C_5$  alkyl groups and mixtures thereof.
- 6. (Original) A method as claimed in claim 4, wherein the hydroxylamine is selected from the group consisting of: 1-hydroxypiperidine, 4-hydroxmorpholine and mixtures thereof.
- 7. (Currently Amended) A method as claimed in any proceeding claim 1, wherein the additional inhibitor is selected from the group consisting of phenols, nitrosophenols, nitrophenols, substituted nitrophenols, quinones, stable free radicals and phenylene diamines.
- 8. (Original) A method as claimed in claim 7, wherein the additional inhibitor is selected from the group consisting of: 2,4-dinitrophenol, 4,6-dinitro-o-cresol, 2,6-dinitro-p-cresol, 2-secbutyl-4,6-dintrophenol, tempo, 4-hydroxytempo, 4-oxotempo, 4-aminotempo and 4-methoxytempo.
- 9. (Currently Amended) A method as claimed in any proceeding claim 1, wherein the amount of additional inhibitor in the range from a trace of 96% by weight of the total amount of inhibitor.
- 10. (Original) A method as claimed in claim 9, wherein the amount of additional inhibitor is 40 to 96% by weight of the total amount of inhibitor.
- 11. (Original) A method as claimed in any preceding claim wherein the ethylenically unsaturated monomer is styrene.
- 12. (Currently Amended) A method as claimed in any proceeding claim 1, wherein the non-hindered cyclic hydroxylamine is 1-hydroxypiperidine or 4-hydroxymorpholine.
- 13. (Currently Amended) A polymerisation inhibitor composition comprising a <u>an</u> ethylenically unsaturated monomer selected from the group consisting of: styrene,  $\alpha$ -methylstyrene, styrene sulphonic acid, vinyltoluene, divinylbenzenes, polyvinylbenzenes,

alkylated styrene, 2-vinylpyridine, acrylonitrile, methacrylonitrile, methyl acrylate, ethyl acrylate, methyl methacrylate, ethyl methacrylate, acrylic acid, and methacrylic acid; and an effective amount sufficient to inhibit polymerisation of a non-hindered cyclic hydroxylamine, alone or in combination with an additional inhibitor.

- 14. (Currently Amended) An inhibitor as claimed in elaim 1 claim 13, wherein the non-hindered cyclic hydroxylamine has no alkyl or other substituents alpha to the hydroxylamine group.
- 15. (Original) An inhibitor as claimed in claim 14, wherein the cyclic hydroxylamine has the formula (1).

wherein X is a group selected from  $(CH_2)_m Y(CH_2)_n$  where m and n are each independently an integer from 0 to 5 and Y is a  $CH_2$ , or hetero atom such as O, S or NH and wherein one or more  $CH_2$  is optionally substituted with one or more  $C_1$  to  $C_5$  alkyl groups,  $(CH_2)_r$ -CH=CH- $(CH_2)_s$  where r and s are independently integers from 0 to 3, optionally substituted with one or more  $C_1$  to  $C_5$  alkyl groups.

- 16. (Original) An inhibitor as claimed in claim 15 wherein the cyclic hydroxylamine is selected from the group consisting of: 1-hydroxypiperidine, 4-hydroxymorpholine, 1-hydroxypyrrolidine, 1-hydroxyazetidine, 1-hydroxy-2,5-dihydropyrrole, 1-hydroxyhexamethylene imine and 1-hydroxyazocan.
- 17. (Original) An inhibitor as in claim 16 wherein the cyclic hydroxylamine is selected from the group consisting of 1-hydroxy-2,3,4-trihydroquinoline, 9-hydroxycarbazole and 1-hydroxy-2,3-dihydroindole, optionally substituted with one or more  $C_1$  to  $C_5$  alkyl groups and mixtures thereof.

- 18. (Original) An inhibitor as claimed in claim 16, wherein the hydroxylamine is selected from the group consisting of: 1-hydroxypiperidine, 4-hydroxmorpholine and mixtures thereof.
- 19. (Currently Amended) An inhibitor as claimed in any proceeding claim 13, wherein the additional inhibitor is selected from the group consisting of: phenols, nitrosophenols, nitrophenols, substituted nitrophenols, quinones, stable free radicals and phenylene diamines.
- 20. (Original) An inhibitor as claimed in claim 19, wherein the additional inhibitor is selected from the group consisting of: 2,4-dinitrophenol, 4,6-dinitro-o-cresol, 2,6-dinitro-p-cresol, 2-secbutyl-4,6-dintrophenol, tempo, 4-hydroxytempo, 4-oxotempo, 4-aminotempo and 4-methoxytempo.
- 21. (Currently Amended) An inhibitor as claimed in any of claims 13 to 20 claim 13, wherein the amount of additional inhibitor in the range from a trace of 96% by weight of the total amount of inhibitor.
- 22. (Original) An inhibitor as claimed in claim 21, wherein the amount of additional inhibitor is 40 to 96% by weight of the total amount of inhibitor.
- 23. (Currently Amended) An inhibitor as claimed in any of claims 15 to 22 claim 15, wherein the ethylenically unsaturated monomer is styrene.
- 24. (Currently Amended) An inhibitor as claimed in any of claims 15 to 23 claim 15 wherein the non-hindered cyclic hydroxylamine is 1-hydroxypiperidine or 4-hydroxymorpholine.

